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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,501	07/30/2003	Robert L. Turner	54599US032	7907
36001	7590	08/17/2006	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY P.O. BOX 33427 ST. PAUL, MN 55133-3427			ALEJANDRO, RAYMOND	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,501

Applicant(s)

TURNER ET AL.

Examiner

Raymond Alejandro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 and 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is responsive to the amendment filed 07/20/06. Applicant has overcome only the objections. Neither prior art rejections under section 102 nor the double patenting rejection have been overcome yet. Refer to the abovementioned amendment for specific details on applicant's rebuttal arguments and remarks. However, the present claims are finally rejected over the same art as presented hereunder and for the reasons of record:

Double Patenting

Note: *applicant has stated that "upon allowance of claims 1 and 3-10, applicants will submit a terminal disclaimer" (See the 07/20/06 amendment at page 5).*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1 and 3-10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 6699336. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

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The US Patent'336 claims the following (CLAIMS 1-4):

- 35 1. An electrode composition comprising:
an electrode material consisting essentially of aluminum,
silicon, and manganese in the form of an amorphous
mixture at ambient temperature that remains amor-
phous when said electrode composition is incorporated
40 into a lithium battery and cycled through at least one
full charge-discharge cycle at ambient temperature.
2. An electrode composition comprising:
an electrode material consisting essentially of germanium,
nickel, silicon, and aluminum in the form of an amor-
45 phous mixture at ambient temperature that remains
amorphous when said electrode composition is incor-
porated into a lithium battery and cycled through at
least one full charge-discharge cycle at ambient tem-
perature.
- 50 3. An electrode composition according to claim 1,
wherein said comprising:
an electrode material consisting essentially of aluminum,
silicon, and copper in the form of an amorphous
55 mixture at ambient temperature that remains amor-
phous when said electrode composition is incorporated
into a lithium battery and cycled through at least one
full charge-discharge cycle at ambient temperature.
4. An electrode composition comprising:
60 an electrode material consisting essentially of silicon, tin,
and copper in the form of an amorphous mixture at
ambient temperature that remains amorphous when
said electrode composition is incorporated into a
lithium battery and cycled through at least one full
65 charge-discharge cycle at ambient temperature.

*In this case, claims 1-4 of the US Patent'336 fully encompasses or anticipates the
claimed subject matter of the present application.*

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the
basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-10 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication 08-50922 (herein called the JP'922 or Kawakami et al). *(For purposes of rejection, US 6051340 to Kawakami et al, which belongs to the same patent family, is being cited hereinbelow as it was published in English language).*

As to claim 1:

Kawakami et al disclose an anode for a rechargeable lithium battery comprising an electrode component comprising a first metal incapable of being alloyed with Li which is generated upon operating charging; and a layer comprising said first metal and a second metal capable of being alloyed with Li (CLAIM 14). Kawakami et al disclose the charging operation of the rechargeable lithium battery (ABSTRACT).

Kawakami et al teach that the first metal is selected from the group consisting of at least Ni, Fe, Cu, Mo, W, among others (CLAIM 14). Said second metal is selected from the group consisting of at least Al, Mg, Si, Ge, Sb, Pb, In and Zn, among others (CLAIM 14/ COL 13, lines 35-45). In addition to that, Kawakami et al uses a layer comprising one or more materials selected from the group consisting of Sn-Bi alloy; Sn-Pb alloy, Zn-Al alloy, Cu-Zn alloy, Cd-Zn alloy (CLAIM 23/ COL 13, lines 35-45). *Thus, Kawakami et al readily envision combinations of these metals, that is, either single combination or a collective combination.*

Examiner's note: *accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

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As to claims 2-5:

As seen above, Kawakami et al uses first metals selected from the group consisting of at least Ni, Fe, Cu, Mo, W, among others (CLAIM 14); and second metals selected from the group consisting of at least Al, Mg, Si, Ge, Sb, Pb, In and Zn, among others (CLAIM 14).

As to claim 6-10:

Kawakami et al directly use Al and/or Si (CLAIM 14); and/or Sn (CLAIM 23).

As to claims 15-16:

Kawakami et al describe the formation of a layer and/or a powdery material (CLAIM 14/ COL 12, lines 22-27/ FIGURES 4a-c).

As to claim 17:

Disclosed is the lithium rechargeable battery comprising a pair of electrodes including the specifically claimed electrode and the electrolyte separating the electrodes (ABSTRAC/ CLAIM 1/ COL 17, lines 52-65/ COL 18, lines 13-18).

Thus, the present claims are anticipated.

5. Claims 1, 3-7, 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 06-325764 (hereinafter referred to as the JP'764).

As to claims 1 and 17:

The JP'764 discloses a non-aqueous electrolyte secondary cell comprising a positive electrode and a negative electrode separated by electrolyte serving as separator 3. Further disclosed is that the negative electrode is constituted as a metallic alloy of Al, Si and Fe, thereby making available Li for participation in the reaction through occlusion/discharge (ABSTRACT).

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***Examiner's note:** accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

As to claims 3-5:

The JP'764 employs a metallic alloy of Al, Si and Fe as the negative electrode (ABSTRACT).

As to claims 6-7 and 9:

Specifically, the JP'764 employs a metallic alloy of Al, Si as part of the negative electrode (ABSTRACT).

As a result, the present claims are anticipated.

6. Claims 1, 4-5, 7 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 10-294112 (hereinafter referred to as the JP'112).

As to claims 1 and 17:

The JP'112 reveals a lithium secondary battery including a separator disposed between an anode pole and a cathode (ABSTRACT) wherein the anode pole contains a lithium oxide; and the cathode active material composition expressed by the formula $M_{100-x}Si_x$ where M is an element chosen from Ni, Fe, Co and Mn (ABSTRACT). The JP'112 is concerned with charging and discharging of the battery (ABSTRACT).

***Examiner's note:** accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

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As to claims 4-5:

The JP'112 employs a metallic alloy of Al, Si and Fe as the negative electrode (ABSTRACT).

As to claim 7:

Specifically, the JP'112 employs Si as part of the cathode (ABSTRACT).

***Examiner's note:** accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

Consequently, the present claims are anticipated.

7. Claims 1-10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 10-223221 (hereinafter referred to as the JP'221).

As to claims 1 and 17:

The JP'221 discloses a secondary battery having a cathode and an anode whose active material; occludes and releases Li-ion (ABSTRACT). *Thus, the JP'221 is related to a Li-ion battery.* Further disclosed is that the cathode active material comprises an inter-metallic compound with one or more kinds of element chosen from Al, Ge, Pb, Si, Zn, Sn and other metals (ABSTRACT). Other metals include Fe, Ni, Cu (TABLE on Page 6) and Mn, Mo as well (P. 0010-0012). The combination also includes the use of single or plural combinations of these metals (P. 0010-0012). The JP'221 describes the impact of using these materials with respect to the discharge/charge characteristics of the battery (ABSTRACT).

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Examiner's note: *accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

As to claims 2-5:

The JP'221 discloses that it is known to use element chosen from Al, Ge, Pb, Si, Zn, Sn and other metals (ABSTRACT). Other metals include Fe, Ni, Cu (TABLE on Page 6) and Mn, Mo as well (P. 0010-0012). The combination also includes the use of single or plural combinations of these metals (P. 0010-0012).

As to claims 6-10:

Specifically, the JP'221 employs a metallic alloy of Al, Si and/or Sn as part of the electrode material (ABSTRACT).

Accordingly, the present claims are anticipated.

8. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by the European Publication 0209402 (hereinafter referred to as the EP'402).

As to claims 1:

The EP'402 discloses an Al-anode alloy (TITLE) consisting essentially of specific weight percents of In, Mn and Mg and the balance being Al (ABSTRACT). The alloy may also contain Fe (TABLES 1 and 3/ABSTRACT). It is particularly useful as a battery anode (ABSTRACT). The EP'402 also uses Si and tin (COL 2, lines 35-48/ TABLE 1); and Zn (TAGLE 1) and Mn (TABLE 3).

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***Examiner's note:** accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.*

As to claims 2-5:

The anode alloy contains Al, In, Mn and Mg and the balance being Al (ABSTRACT); and also contain Fe (ABSTRACT). The EP'402 also uses Si and tin (COL 2, lines 35-48/ TABLE 1 and 3); and Zn (TAGLE 1) and Mn (TABLE 3).

As to claims 6-10:

Specifically, EP'402 employs Al, Si and tin as part of the electrode material (ABSTRACT/ COL 2, lines 35-48/TABLE 1 and 3).

Hence, the present claims are anticipated.

9. Claims 1-6, 8 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the European Publication 0750359 (hereinafter referred to as the EP'359).

As to claims 1 and 17:

The EP'359 discloses a secondary battery comprising a pair of electrodes and a separator disposed between the pair of electrodes (TITLE/ABSTRACT/ FIGURE 3) wherein the negative electrode contains particles composed of material contributing a charge-discharge reaction, and the particles comprises at least two phases (ABSTRACT). The Li-battery is also taught (Page 2, lines 21-24).

As for the negative electrode material, an alloy composed of components Ni combined with at least one of element selected from the group consisting of Mg (Page 6, lines 29-31)

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and/or an alloy composed of components of the above alloy combined with at least one of element selected from the group consisting of Al, Mn, tin, Mo, W, Pb, Fe (Page 6, lines 32-35).

The electrode material can include an alloy comprising Ni-Mn-Al or Ni-Mn-Al-W or Ni-Mn-Al-Mo (Page 6, lines 37-43).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2-5:

As for the negative electrode material, an alloy composed of components Ni combined with at least one of element selected from the group consisting of Mg (Page 6, lines 29-31) and/or an alloy composed of components of the above alloy combined with at least one of element selected from the group consisting of Al, Mn, tin, Mo, W, Pb, Fe (Page 6, lines 32-35). The electrode material can include an alloy comprising Ni-Mn-Al or Ni-Mn-Al-W or Ni-Mn-Al-Mo (Page 6, lines 37-43).

As to claims 6 and 8:

Specifically, EP'359 employs Al and tin as part of the electrode material (Page 6, lines 32-43).

For this reason, the present claims are anticipated.

10. Claims 1-2, 4-5, 8 and 15-17 are rejected under 35 U.S.C. 102(a) as being anticipated by the WO publication WO 99/49532 (hereinafter referred to as the WO'532).

As to claims 1 and 17:

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The WO'532 discloses a tin alloy electrode composition for Li-batteries (TITLE) wherein the electrode composition includes: a) an electrochemically active metal element which, prior to cycling, is in the form of an intermetallic compound or an elemental metal and (b) a non-electrochemically active metal element (ABSTRACT). The electrode compositions have high initial capacities that are retained even after repeated cycling (ABSTRACT). The cathode, the anode and the electrolyte are taught (Page 7, lines 5-16).

The electrochemically active element is tin (Page 5, lines 8-10). The non-electrochemically active metal element are Mo, Nb, W, Ta, Fe, Cu, and combination thereof (Page 5, lines 9-13). They may be present in the form of single element metals, intermetallic compounds featuring the metal combined (Page 5, lines 10-18).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2 and 4-5:

The electrochemically active element is tin (Page 5, lines 8-10). The non-electrochemically active metal element are Mo, Nb, W, Ta, Fe, Cu, and combination thereof (Page 5, lines 9-13). They may be present in the form of single element metals, intermetallic compounds featuring the metal combined (Page 5, lines 10-18).

As to claim 8:

Specifically, WO'532 employs tin as part of the electrode material (Page 5, lines 8-10).

As to claims 15-16:

The electrode composition is in the form of layer/film or powder (Page 2, line 30/ Page 3, line 11-13/Page 7, lines 3-5, lines 20-28).

Thus, the present claims are anticipated.

Response to Arguments

11. Applicant's arguments filed 07/20/06 have been fully considered but they are not persuasive.

12. With respect to applicant's arguments that "*the classic example of this phenomenon is the case of graphite and diamond*", the examiner respectfully avers that, currently, we are not dealing with graphite or diamond. The issue under contention is whether the all-encompassing limitations "*one electrochemically inactive elemental metal*" (which one? Indefinite) and "*at least one electrochemically active elemental metal*" (which one? Indefinite) can be taken as any given representative composition that behaves as set forth by the applicant. The answer is NO, because applicant's classic example (i.e. graphite vs. diamond) calls for specific materials, compositions and crystalline microstructures, which are certainly quite different from applicant's claimed amorphous material.

13. With respect to the JP'922, applicant has argued that such a reference "*provides no further disclosure regarding the microstructure of this alloy, nor does it provide sufficient details regarding the manufacture of this alloy*". Therefore, "*it is impossible to determine whether these alloys are in the form of an amorphous mixture*". In reply, the examiner contends that applicant bears the burden of proof in inherency rejections. "[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning,

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does not render the old composition patentably new to the discoverer.” *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). *In In re Crish*, 393 F.3d 1253, 1258, 73 USPQ2d 1364, 1368 (Fed. Cir. 2004). The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product, *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). See **MPEP 2112**. This is equally applicable to the discussion of the JP’764 and the EP’359 concerning this matter.

14. As to applicant’s arguments concerning “*the manufacture of the alloy*”, it is noted that manufacture of the alloy is not at issue in the present application. Patentability of a product does not depend on method of making the same. Thus, such an argument adds nothing of significance to the patentability of a product as instantly claimed (i.e. an electrode composition). The same goes for the discussion of the JP’764 about this aspect.

Accordingly, the examiner also asserts that it is not enough that applicant’s representative personally believes that the prior art does not disclose the “amorphous characteristic of the electrode composition. That is to say, the arguments of counsel cannot take the place of evidence in the record. An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of inherent anticipation/obviousness (See **MPEP 716.01 and 2145: Consideration of Applicant’s Rebuttal Arguments**).

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15. With respect to applicant's comments regarding the JP'112, the JP'221 and the WO'532, applicant has argued that the limitation "*consisting essentially of*" exclude compounds which may include certain forms of crystallinity. There is no dispute about the implication of the term "*consisting essentially of*", namely, the exclusion of additional materials by limiting the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristic(s) of the claimed invention. However, an interpretation of the literal claim scope reveals that applicant is not claiming that both the "*at least one electrochemically inactive elemental metal*" and the "*at least one electrochemically active elemental metal*" are in the form of an amorphous mixture. Present claim language only stipulates, indeed, that the "*at least one electrochemically active elemental metal*" consists essentially of a metal in the form of an amorphous mixture, but not both metals as apparently argued by the applicant. In other words, the "*consisting essentially of*" limitation does exclude the presence of crystalline regions or materials only for the "*at least one electrochemically active elemental metal*", but not for the "*at least one electrochemically inactive elemental metal*". The examiner has interpreted the claim language as such.

16. Concerning the EP'402 and the EP'359, it has been contended that "*It describes using a conventional casting protocol to produce the alloys. Such a method would not produce an amorphous alloy...*" (the EP'402) or "*an annealing step characteristic of processes that produce crystalline material*" (the EP'359). However, in the absence of objective evidence demonstrating the validity and technical accuracy of such contention, the foregoing argument has little merit and fails to provide patentable distinction over that prior art reference. A statement or argument

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by the attorney is not factual evidence. (See *MPEP 716.01 and 2145 Consideration of Applicant's Rebuttal Arguments*).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raymond Alejandro
Primary Examiner
Art Unit 1745

RAYMOND ALEJANDRO
PRIMARY EXAMINER